Australian/New Zealand Standard™

Motor vehicles—Cargo restraint systems—Transport fibre rope

Standards Australia

STANDARDS NEW ZEALAND

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee ME-048, Restraint Systems in Vehicles. It was approved on behalf of the Council of Standards Australia on 30 September 2001 and on behalf of the Council of Standards New Zealand on 19 October 2001. It was published on 21 November 2001.

The following interests are represented on Committee ME-048:

Australian Automobile Association
Australian Chamber of Commerce and Industry
Australian Industry Group
Commercial Vehicle Industry Association of Australia
Consumers Federation of Australia
Federation of Automotive Products Manufacturers, Australia
Land Transport Safety Authority, New Zealand
Roads and Traffic Authority of New South Wales

Additional interests participating in the preparation of this Standard:

Vehicle transport industries
Webbing manufacturers and suppliers

Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Australia web site at www.standards.com.au or Standards New Zealand web site at www.standards.co.nz and looking up the relevant Standard in the on-line catalogue.

Alternatively, both organizations publish an annual printed Catalogue with full details of all current Standards. For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia International or Standards New Zealand at the address shown on the back cover.

This Standard was issued in draft form for comment as DR 00346.

Australian/New Zealand Standard™

Motor vehicles—Cargo restraint systems—Transport fibre rope

Originated as AS/NZS 4345:1995.
Second edition 2001.

Jointly published by Standards Australia International Ltd, GPO Box 5420, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

ISBN 0 7337 4150 9

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME-048, Restraint Systems in Vehicles to supersede AS/NZS 4345:1995, *Cargo restraint systems — Transport fibre rope*.

The objective of the Standard is to provide requirements for rope used in the transport industry for restraining cargo on vehicles, and manufactured from the following textile fibres:

(a) Polyester (PES).

(b) Polyethylene (PE).

(c) Polypropylene (PP).

These fibres are described in AS/NZS 2450, *Textiles—Natural and man-made fibres—Generic names*.

This Standard is set out in three sections, covering general requirements (including colour coding for generic fibre type and the rated strength of transport fibre rope identified by a black marker yarn), manufacturing requirements and test requirements.

This Standard does not provide any information on fittings, which may be obtained from AS 2089, *Sheave blocks for lifting purposes*.

The strength factors for transport rope in Australia and New Zealand are currently 4:1 and 2:1 respectively. This has necessitated country specific requirements within the Standard. The New Zealand Land Transport Safety Authority is to prepare a new ‘Rule’ to replace existing legislation, at which time the strength factor requirement will be reviewed.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the appendix to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is only for information and guidance.

CONTENTS

Page

FOREWORD

In tensioning, the lashing capacity (LC) of each component must take account of the conditions of use and be compatible with any loads inherent in and applied to the system, and each component should readily connect with each adjacent component. Therefore, it is important that components of tensioning be quickly and positively identified in service for size, capacity and if applicable, quality grade.

Where applicable, the quality grading system used in this Standard is based on the system incorporated in other Australian/New Zealand Standards covering components in lifting and tensioning. This is intended to promote positive identification and easy selection because it relates to the mechanical properties of the finished product and not simply to the strength of the material. In some countries lashing capacity (LC) may be referred to as ‘rated assembly strength’ (RAS) and it is normally expressed in kilograms (kg) for ease of understanding in use rather than kilograms force (kgf).

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard
Motor vehicles—Cargo restraint systems—Transport fibre rope

SECTION 1 SCOPE AND GENERAL REQUIREMENTS

1.1 SCOPE

This Standard specifies requirements for fibre rope used in the transport industry for restraining cargo on vehicles under normal operating conditions. It includes tests for breaking force and elongation (refer to Appendix A).

NOTE: Guidelines on information to be supplied with enquiries and orders are given in Appendix B and the means for demonstrating compliance with this Standard are given in Appendix C. Appendix D gives advice on the selection, use and care of fibre ropes.

1.2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS	
1199	Sampling procedures and tables for inspection by attributes
1399	Guide to AS 1199—Sampling procedures and tables for inspection by attributes
2001	Method of test for textiles
2001.1	Part 1: Conditioning procedures
2193	Methods for calibration and grading of force-measuring systems of testing machines
4142	Fibre ropes
4142.1	Part 1: Care and safe usage
4142.2	Part 2: Three-strand hawser-laid and eight-strand plaited
4143	Methods of test for fibre ropes
4143.1	Method 1: Dimensions, linear density, breaking force and elongation
AS/NZS ISO	
9000	Quality management systems—Fundamentals and vocabulary
9004	Quality management systems—Guidelines for performance improvements
HB 18	Guidelines for third-party certification and accreditation
HB 18.44	Guide 44—General rules for ISO or IEC international third-party certification schemes for products (SANZ HB 18.44)

1.3 DEFINITIONS

For the purpose of this Standard, the definitions below apply.

1.3.1 Acceptable quality level (AQL)

A quality level which corresponds to a relatively high probability of acceptance. It is the maximum percent defective or the maximum number of defects per one hundred items that, for purposes of sampling inspection, can be considered satisfactory as a process average.